

**Preliminary Amendment of U.S. National Stage for International Application  
PCT/EP00/07849 filed on August 11, 2000**

12. (New) A process for the production of branched, substantially unsaturated fatty alcohol ether sulfates comprising the steps of: (a) dimerizing an unsaturated C<sub>16-22</sub> fatty acid to form a dimer fraction and a monomer fraction comprised of branched, substantially unsaturated fatty acids and straight chain saturated fatty acids, (b) separating the monomer fraction from the dimer fraction, (c) converting the branched, substantially unsaturated fatty acids in the monomer fraction into the corresponding fatty acid methyl esters, (d) hydrogenating the branched, substantially unsaturated fatty acid methyl esters with the double bonds intact to form the corresponding branched, substantially unsaturated fatty alcohols and (e) sulfating and neutralizing the branched, substantially unsaturated fatty alcohols.
13. (New) The process of claim 12 wherein the branched, substantially unsaturated fatty alcohols are sulfated with sulfur trioxide or chlorosulfonic acid.
14. (New) The process of claim 12 wherein step (e) is carried out in a falling-film reactor.
15. (New) The process of claim 12 wherein step (e) is carried out at temperature of from about 25 to about 90°C.
16. (New) The process of claim 12 wherein in step (e) the molar ratio of fatty alcohol to sulfating agent is from about 1:0.95 to about 1:1.8.
17. (New) A process for the production of branched, substantially unsaturated fatty alcohol ether sulfates comprising the steps of: (a) dimerizing an unsaturated C<sub>16-22</sub> fatty acid to form a dimer fraction and a monomer fraction comprised of branched, substantially unsaturated fatty acids and straight chain saturated fatty acids, (b) removing the straight chain saturated fatty acids from the monomer fraction by fractional crystallization and optionally separating the crystallization solvent by distillation, (c) converting the branched, substantially unsaturated fatty

**Preliminary Amendment of U.S. National Stage for International Application  
PCT/EP00/07849 filed on August 11, 2000**

*A.2c*  
acids in the monomer fraction into the corresponding fatty acid methyl esters, (d) hydrogenating the branched, substantially unsaturated fatty acid methyl esters with the double bonds intact to form the corresponding branched, substantially unsaturated fatty alcohols and (e) sulfating and neutralizing the branched, substantially unsaturated fatty alcohols.

18. (New) The process of claim 12 wherein the methyl esters and/or the corresponding branched, substantially unsaturated fatty alcohols are distilled prior to step (e).
  19. (New) The process of claim 17 wherein the methyl esters and/or the corresponding branched, substantially unsaturated fatty alcohols are distilled prior to step (e).
-